

# AVIATION

*The Oldest American Aeronautical Magazine*

DECEMBER 8, 1924

Issued Weekly

PRICE 10 CENTS



Vought UO1 (200 hp. Wright Whirlwind) spotting plane on catapult, U.S.S. Trenton

VOLUME  
XVII

## SPECIAL FEATURES

NUMBER  
23

\$65,000,000 FOR AIR SERVICES IN 1925-26

MISSION OF NAVAL AIRCRAFT WITH THE FLEET

CURRY BILL FOR A DEPARTMENT OF AERONAUTICS  
MAN HOURS IN EXPERIMENTAL AIRCRAFT PRODUCTION

GARDNER PUBLISHING CO., INC.

HIGHLAND, N. Y.

225 FOURTH AVENUE, NEW YORK

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BOEING AIRPLANE COMPANY  
SEATTLE, WASHINGTON



DECEMBER 8, 1924

# AVIATION

Published every Monday

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## LEASE OF NAVAL AIR STATION CAPE MAY, NEW JERSEY

### To A Commercial Airship Company

By order of the Secretary of the Navy, sealed proposals will be received by the Central Sales Office, from commercial airship companies for the lease of the above station for a period of five (5) years in accordance with the Terms and Conditions outlined in CATALOGUE 259-B.

Catalogue 259-B, opening 11 A.M. (Eastern Standard Time), 18 December 1924, contains detailed descriptions, Terms of Lease, etc., and may be obtained from the Supply Officer, Navy Yard, Philadelphia, Pa., or the

CENTRAL SALES OFFICE  
NAVY YARD  
WASHINGTON, D. C.

## The World's Flying Records

### Airplanes

3 Kilometers—165.59 m.p.h. Nov. 4, 1923, Lt. A. J. Wilson, U.S.N., *Curtiss-Navy Racer and Curtiss D12A Engine*

Max. Duration—36 hr. 4 min. 34 sec. April 16, 1923, Lt. D. G. Kelly and Lt. J. A. Murphy, U.S.A.

100 Kilometers—215.81 m.p.h. Oct. 6, 1923, Lt. A. J. Wilson, U.S.N., *Curtiss-Navy Racer and Curtiss D12A Engine*

Altitude with Light Load—16,215 ft. October 30, 1923, by Sub. Lts. C. L. and E. L. M. M. M. France

300 Kilometers Triangular Course—241.67 m.p.h. October 6, 1923, Lt. A. J. Wilson, U.S.N., *Curtiss-Navy Racer and Curtiss D12A Engine*

### Seaplanes

300 Kilometers Triangular Course—177.29 m.p.h. October 25, 1924, Lt. R. A. Olin, U.S.N., *Curtiss-Navy Racer and Curtiss D12A Engine*

Altitude with Light Load—39,462 ft. March 11, 1923, Sub. Lts. C. L. and E. L. M. M. France

100 Kilometers—136.42 m.p.h. Oct. 25, 1924, Lt. R. A. Olin, U.S.N., *Curtiss-Navy Racer and Curtiss D12A Engine*

Max. Duration—19 hr. 28 min. Oct. 10, 1924, Lt. W. M. and Mrs. U.S.N., *Curtiss CS2 Seaplane*

3 Kilometers—159.66 m.p.h. Oct. 25, 1924, Lt. G. Cudby, U.S.N., *Curtiss-Navy Racer and Curtiss D12A Engine*

**CURTISS AEROPLANE & MOTOR COMPANY, INC.**

GARDEN CITY, N.Y.

FACTORIES BUFFALO, N.Y. & GARDEN CITY, N.Y.

VOL. XVII

DECEMBER 8, 1924

### Next Year's National Air Races

ONE of the questions which at present are in the minds of those who are constructively interested in the future of American aviation, and commercial aviation in particular, is: Where shall the next National Air Races be held?

A careful consideration of this all-important subject raises one question, whether it is desirable to hold such races one big National Air Meet at which all the major flying contests could be concentrated, and whether it would not be preferable to organize instead a limited number of outlined meets, each of which would as near as possible be specialized to the various uses of aircraft. Aviation seems to have undergone a change where the success of a meet depends on the participation of all agencies concerned with flying. The era of specialists has now past, and it would seem best to keep this in mind in the organization of air meets.

Commercial aviation, in particular, is just beginning to stand on its own feet. Its requirements differ so widely from those of the Air Services as may be drawn from exhibits from Manufacturers, operators and jobbers of commercial aircraft who are looking forward to some sort of annual contest where the public could be given a striking practical demonstration of commercial air transport, an event which would illustrate the slogan, "Safe Flying is Safe."

In the annual "On the X" race becomes each year more and more important as a true indicator of civil flying, it should be made the central event of such a National Commercial Air Meet, and it should be endowed with a great number of cash prizes so as to attract the greatest number of people who fly for business or pleasure. This main event should be supplemented by meets and other contests in order to foster progress in design and give the spectator a competitive demonstration of the efficiency of the ships. Besides these there should be a sort of field exhibition where the public could get into personal contact with the leaders and operators of commercial aircraft and where prospective purchasers could get demonstration flights.

Such a Commercial Air Meet—or Air Meet I—should be a purely civilian affair and be held on a civilian field, situated preferably in the Central Airway Belt which extends from the Great Lakes to the Gulf of Mexico. Such a location would make it, within reason, equally accessible from the principal flying centers.

Now there remains to be disposed the purely military meets. Considering the outstanding success of the Steel Pier Pageant held last October in Baltimore, it is felt that this should be made an annual event, with the Schneider Cup race as the second attraction. Commercial air flying is as yet so unidentified that an event for commercial aspirants could be added to this Pageant to best advantage, the more so as it will be difficult to find a desirable location for a Commercial Air Meet where both land and sea aircraft can compete. Likewise it is already in line for next year's Schneider Cup

race, and the splendid manner in which that city held this year's regatta there, together with its natural facilities for such an affair, would make it the natural choice for 1925.

The Pulitzer Trophy race should become the star attraction of an Air Service Pageant, also to be held annually, which would be rounded out by contests for precision, observation and bombing planes. As the West Coast has not recently had a big air meet, it is suggested that such an Air Service Pageant be held next year in that region.

The tentative program outlined above would take care of the three main sections of the country's first class air meet, each of which would probably be a much greater one than if they were thrown into one.

### Political Dangers of McCook Field

FORGETTING for the moment the various minor controversies concerning the uses and function of an engineering division of the Air Service as represented by McCook Field, the dangers of political influence can be considered with profit just now.

There has been recommended an expenditure of \$1,000,000 for the preliminary work necessary for the moving of McCook Field to the new site donated by the citizens of Dayton, which is valued at \$400,000.

When this figure was cut to a much smaller sum by the Director of the Budget, and the news became known at Dayton, a delegation from Dayton headed by Frederick B. Patterson went to Washington and urged the Director of the Budget to increase the amount allotted. This form of lobbying is one of the chief dangers of Dayton's exceedingly zealous efforts in retaining McCook Field.

It will be well for the Government to look carefully into the future, particularly with regard to the political side, before definitely appropriating funds for this project. It is well known that the Navy Department has been trying to close the Charlestown Navy Yard for years. It has also wanted to close the Newport Station. But just as soon as any move in this direction was attempted, political influences, and not considerations of governmental economy and efficiency, blocked the plan.

In just the same way will the Army be limited by political considerations, if at every instance a delegation from Dayton appears and urges larger appropriations. So far as Dayton is willing to get a new \$6,000,000 Army post within its borders, particularly if it now has the fourth largest civil air pay roll in Dayton. Those who are the present Air Service of the Army still in its formative stage of development do object to this appropriation at this time. When the President and the Congress of the House investigating the air activities of the Government will have framed a National Air Policy, it will be the time to think of a permanent site for an engineering division.



# Mission of Naval Aircraft with the Fleet

Address Delivered before the Department of Aeronautics, N. Y.  
University By Comdr. Holden C. Richardson, U.S.N.

In an address delivered before the Department of Aeronautics of New York University on Oct. 15, last, Comdr. Holden C. Richardson, U.S.N., gave a comprehensive outline of the operation and functions of naval aircraft.

The Naval Air Service has been concerned with the development of aircraft to serve with the fleet as distinct from transports, aircraft such as were used during the war with Germany, and non-combat aircraft which have yet to be developed.

"The mission of aircraft with the Fleet," Comdr. Richardson said, "is to increase the efficiency of the Fleet in the defense of the Nation. To this end aircraft are employed for

the air as possible and to maximize them in operating condition. Fleet leaders are smaller craft than the carriers which serve in leading aircraft which accompany the Fleet and which are too large to be carried on the carriers. They serve as transports, as tenders, and as port and shore patrols. They serve as fighters for the plane crews when absent from the mother ship. We have considered the purposes for which aircraft are used. Let me now consider the types for these purposes.

## The Combat Plane

The combat plane is a single- or two-seater plane, built of wood or steelplate. As a warplane it is equipped with

the air as possible and with armament. The combat plane is a single- or two-seater plane, built of wood or steelplate. As a warplane it is equipped with

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## Spotters and Bombers

Spotters are aircraft mounted altitude, good all round, of wood and fabric and radio. They must be handled with care and care and can be repaired by landing on or on an aircraft carrier and ant therefore unsophisticated, single-engine and three-seaters.

Bombers and torpedo planes, of far use from carriers, are single-engine planes because of restrictions on maximum weight to the size of the carrier deck and also the storage space available to transports planes that carry a crew of two. Bombers are mounted on bombers, though these using a single deck and bombs and the range is reduced by the necessary use of fuel for bombs.

Spotters and bombers planned can also be done by light aircraft, that is, the unarmored and rigid structures, but they are as vulnerable to aircraft attack that their spheres of influence are restricted to certain areas.

However, there are radios of action and long distant warning radio use is very important in some certain conditions.

"One of the main uses of the aircraft is to detect the most difficult types to produce, that is, the flying boats. The Sopwith Schneider flying boat is given as dual control capable of the single-engine, nose-down type. Advanced training is given in land planes and capable of all standard types and includes radio, navigation, gunnery, bombing, control, bombing and torpedo training.

"Observation, scouting or reconnaissance work in the Navy is done by Army, due to the much larger number of observers of naval forces, cannot be done land planes. Photographic is of limited use, the areas to be covered are greater, and the combined effects of wind and enemy speed may be more serious in the effects of a mission than in the use of land planes.

## Differences Between Sea and Land Work

"Let us review for a few moments the differences between aircraft for land work and for work over the seas. First of all, comes the flotation system requiring floats or floats in place of land gear, though as indicated, land planes can and are used under certain conditions, but these conditions require in some cases protection of safety strength for catapulting and in all cases for landing on the deck of a carrier. In certain cases, too, it is required to launch aircraft from the deck of a carrier and to land them on the deck of ships instead of in land planes shot out or even shot down.

These added requirements are handicaps which can be minimized, but have to be accepted. In general, to minimize these requires larger planes and greater horsepower than is required for land planes for the same mission. The only requirement to be found is that the energy must meet the same requirements.

"One of the types of aircraft is the training of personnel for spotting, which is a great work, not to mention bombing, which is extremely important for seaplanes, and requires for all classes of work.

## Man Hours in Experimental Aircraft Production

The figures given below are the actual man hours spent in the design and building of the Aeronautics Model 100 which was described in detail in our issue of Aug. 11, 1924. The machine is a three-place metal hull tractor flying boat built with a 75-hp Anzani radial engine. The machine was built by the Aeronautics crew who had general ideas as to the type of aircraft wanted. These ideas were enlarged by the aircraft engineer who was given to make preliminary drawings and specifications of all the features in which he would not be the class. The Aeronautics Plane and Motor Co. was fully interested in being most interested and exper-



**F-2A Plane**  
F-2A experimental flying plane (200 hp Wright Whirlwind engine), model from designs of the Navy TS type, built by Charles W. Hell.

ised in this type of work. The work was done on a cost plus basis, adding 100 per cent to direct labor for overhead expenses and 10 per cent for profit. A top limit was set on the company paying if the cost went beyond a certain point. In reaching the probable cost of making the plane, the Company made a rough estimate based on the weight of the machine, and then made a detailed estimate of the time which would take to make the various parts.

The cost of the F-2A plane, planned to be used as a search and the design was completed in detail. The cost of a model of a new design naturally took longer to build than a standard type, but only a few parts had to be made more

	MAN HOURS	DESIGN AND CONSTRUCTION
1. <b>Float Structure</b>		
Fabric and wood and glass	44	400
Fabric	242	310
Wood (balsawood, spruce, etc.)	242	310
Glue	104	130
Total	490	940
2. <b>Fuselage</b>		
Fabric and wood	93	168
Fabric and wood and glass	300	510
Glue	104	130
Spruce	211	360
Balsa	120	200
Cork and assembly	320	530
Total	850	1650
3. <b>Wing</b>		
Fabric and wood	116	200
Fabric and wood and glass	219	360
Glue	47	70
Total	332	630
4. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
5. <b>Empennage</b>		
Fabric	98	170
Fabric and wood	125	210
Glue	42	60
Spruce	15	25
Balsa	78	130
Total	345	670
6. <b>Propulsion</b>		
Fabric	98	170
Fabric and wood	125	210
Glue	42	60
Spruce	15	25
Balsa	78	130
Total	345	670
7. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
8. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
9. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
10. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
11. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
12. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
13. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
14. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
15. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
16. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
17. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
18. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
19. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
20. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
21. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
22. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
23. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
24. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
25. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
26. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
27. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
28. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
29. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
30. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
31. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
32. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
33. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
34. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
35. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
36. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
37. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
38. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
39. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
40. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
41. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
42. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
43. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450
Glue	52	70
Spruce and wood	22	360
Balsa	107	180
Total	549	1040
44. <b>Wing</b>		
Fabric	120	200
Fabric and wood	272	450



# Opinions on National Air Legislation

## Do We Want Government Control of Civil Aviation? If so, What Kind?

The various points enumerated in previous approaches as a rule, the question of aeronautical legislation with a number of red opinions and prejudices which are not always based on sound knowledge of the situation. The following are the opinions that have led to a much greater consideration and study of proposed legislation than would have been the case had there not been such varied differences of opinion, and many people who had taken much for granted have during the last year really studied the subject and put in much time and thought over it. In so far as any other than American diversity has crept in, it is mainly from people trying to fit a continental world, among whom are expert shear opinion for the benefit of our readers. We will endeavor to present the more important and in such a manner as to bring out the various points for and against legislation.—Editor.

### Editor, Aviation

With regard to the subject of aeronautical legislation, I believe that some legislation is absolutely essential to the successful progress of commercial aviation. In my opinion, a federal law should be enacted at once, so that conflicting state laws will not be passed. Unless Congress acts in this matter, a period of great confusion is sure to result.

I am afraid that there are many who believe that government control of civil aviation would hamper progress, and who fear that many manufacturers of passenger-carrying aircraft and airway ships would experience considerable difficulty in having them approved by governmental inspectors, with the result that the development of aircraft for commercial purposes would be greatly retarded. I agree that such a condition might easily arise, if an inefficient personnel were in charge of the inspection of aircraft and engines and types. However, from the point of view of the successful and rapid growth of passenger lines, I am concerned that the public would be more willing to ride in aircraft, if it knew that the original design and the ordinary maintenance of planes were supervised by the activities of a proper government bureau, in charge of the licensing and periodical examination of pilots, and also of the measures to prevent the use of dangerous and unsatisfactory craft.

It is doubtful whether it will be possible to interest any large amount of capital in a commercial aviation enterprise, so long as such questions as the liability of the operating company to passengers and the owners of goods carried, the right to fly over private property, and the designation of intersecting aerial routes, have not been settled. If these questions are properly taken care of by legislation, it will be difficult to obtain satisfactory insurance for commercial aviation projects. It is certain that in Europe, where government regulation and inspection is in force, commercial aviation has been helped rather than hindered, and until proper aeronautical legislation is in effect, commercial aviation will not be a success.

CHARLES L. LAWRENCE  
Vice President, World Aeromarine Corp.  
Parsippany, N. J.

### Public Confidence Requires Regulation

#### Editor, Aviation

If commercial flying is to have any future, it must be conducted safely and steadily, and by responsible men. That is an obvious as to be platitude. One had accident more than endures the good effect of a year of operations without accident, and the honest and careful operator will always suffer for the sake of the unscrupulous or ignorant or careless. The man who is trying to run an air line as a real commercial proposition and to render a real service to the public is entitled to protection. We shall never have crusades as

of aircraft until there is general confidence in their safety, reliable, safe aircraft. It is, indeed, impossible to interest the public in an order of importance, for both are absolutely essential.

Unfortunately, there are a number of maladjusted or inherently incompetent pilots flying, and carrying passengers at the present time, and there are a large number of airplanes which, whatever their original merits have been allowed to deteriorate into such condition as to render them a menace either to the public, to the passengers, and to the interests of the aeronautical industry. Everyone realizes that that condition cannot be corrected by inspection alone, as the few states that have adopted laws regarding registration and license after inspection.

We have had a state law in Massachusetts for four years, and this has worked out well. It has never interfered in the direction of safety, with the exception of anyone who desired to fly for safety and was compelled to do so, but no one who wished to fly working, who has given great attention to the subject, and the distinction between amateur and professional is good if not perfect. In Canada there are no laws, and there this should be as incentive for the use of aircraft. In England, where they also have a very efficient set of laws, there is little or no commercial aviation. This I understand is due to the character of the nature of population. There is France there is little or no commercial aviation, except for amateur flights which are kept strict by the government. In Germany, aircraft progress is very rapid, and France told me that this was due to the lack of available space to fly in, and to the peculiar atmospheric conditions so truly French. In America there are many, if not more, privately owned and operated airplanes than there are in any one of the other countries mentioned.

As we are going to bend ourselves up with air laws that will be effective only in hindering the development of new types of aircraft? If we do, we will then be able to say that we have been hampered in the development of our propellers, of the motor, of the engine, if it is too many. It is necessary to allow the facilities of our progressive designers to be unimpeded by the style of aeronautical blue-prints of war designed aircraft. To have aviation now, we have government control will give power and practical dispensation in a dozen few, and we have the red tape and political favoritism as a target for our enemies?

When the day comes that we can bring forth the type of plane that the public wants, and those same laws will be used to obstruct it, we will be blamed by the public. This is not at all fair. A demand for aircraft cannot be denied by the enactment of legislation. Just because we have air laws will not big gag noses cause the public to rush in and buy airplanes. Legislation will not create new types of planes, therefore let us treat as laws with the consideration that is due them.

There are few, if any, in America, or the world for that matter, who can say truthfully, what the development of aircraft will be in 1925, or 1930, or 1935. Who would dare to forecast the development of aerial transportation, the growth of the radio industry, the new uses that will be found in the nation parks, etc., etc. By that time we will have a visionary picture or large future demands, but instead of allied industries, the effect upon the public, and the other vital factors that go to make up the growth of an important industry.

It is true, we are in the face of this day to make up our situation today, that will, with new developments, be

helpful, and distract progress. All we can see are the types of planes that have already been built; those we can see, and those, and not down is a rule. How do we know that the future type of aircraft will have anything as compare with these planes? The length and detail of the Winslow bill clearly indicates that the legislation of aircraft today will not only a burden on the aeronautical industry but a detriment to future development.

With our present type of aeronautics I readily admit that we need laws to regulate our industry. Aviation will need laws, and we will be the ones to make them, and others. We are anxious that at the end of Winslow's bill, there should be a body of aeronautics laws had passed through a set of government laws for aircraft, the world could only have enough sheet aluminum. In those days they did the majority of laws in aeronautics, therefore merely as a measure to keep legislation from falling into the idle hands of State government, the set of laws that would be developed, would not be so much as is desired for aviation and aircraft. A committee could be termed "Av. Building Act" which would give the Federal Government the power to legislate aeronautics as the necessity arises.

There are many great examples of detailed legislation and aircraft, Canada, for instance, supplies us with an authority and legal validation of the beneficial effect of high-bound legislation. I have heard that the slow development of aviation in Canada is due to the lack of knowledge, wholly to plane. And the distinction between amateur and professional is good if not perfect. In Canada there are no laws, and there this should be as incentive for the use of aircraft. In England, where they also have a very efficient set of laws, there is little or no commercial aviation. This I understand is due to the character of the nature of population. There is France there is little or no commercial aviation, except for amateur flights which are kept strict by the government. In Germany, aircraft progress is very rapid, and France told me that this was due to the lack of available space to fly in, and to the peculiar atmospheric conditions so truly French. In America there are many, if not more, privately owned and operated airplanes than there are in any one of the other countries mentioned.

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R. H. HEDDER  
Harrington & Associates, New York

**For Federalization of Air Space**

### Editor, Aviation

Replying to your request for opinion on the Winslow bill, would say I believe no capital will appear for commercial aviation in this country until Congress declines the air mail privilege.

The bill, however, will be passed by the so-called friends of aviation. They understand that it is a compromise, let the split come and a separate department to control aeronautics and not letters. We need united effort. The aviation party is small enough at least. It is folly to start an aeronautic wings before we have any aviation to fight over.

The Winslow bill accomplishes the legalizing of flight—and much more. I think it is a good bill. Its only defect, is that it is not strong enough to accomplish the task. The bill is not a bill at the end of it, it is a compromise.

But why criticize the Winslow bill? Winslow is as perfect a meets with unanimous approval. Let's get our forces together and back the Winslow bill with all our strength. Improvements and alterations will doubtless be needed. There is no harm in that. Improvements and alterations always follow. But after five years of waiting let's give a foundation now, and let's go forward with the changes. We stand alone. Come on in the date. We are not alone. We should approach one individual ambitious all join together with a common purpose to create without question the legality of flying.

LAWRENCE L. THOMPSON  
Designs  
New York Flying Corps, New York

### Tornado vs. Typhoon

As was announced a few issues back, the Wright Aeromotive Corp. of Paterson, N. J., decided to submit bills for the latter, which will distinguish the various models of engine built by the firm. The design, which was suggested by the Wrights, will be submitted to the Patent Office, and will naturally take some time before it will be given a use. To avoid all confusion, Aeromotive will use the type name and give the old type letter in brackets with each a reminder will have become unnecessary.

In this connection it should be noted that on the cover page of our Nov. 17 issue, showing the new naval patrol engine built by the firm, the Wright T-3 engine was erroneously referred to as the "Typhoon," when as a matter of fact the engine is designated as the "Tornado." The "Typhoon" is the marine engine developed from the T-3.

The other Wright aviation engine are designated as follows:

Model A, 2,200 hp air-cooled radial—"Whirlwind."  
Model B, 2,200 hp water-cooled V-type—"Turbop."  
Model C, 600 hp air-cooled radial—"Gale."

### Special Air Mail Envelopes

With a view to facilitating the prompt handling of air mail, the Post Office Department has approved the use of a special air mail envelope, the design for which was prepared by the Air Mail Extension Committee of New York.

The envelope, of standard business format (5½ x 8½ in.), carries a three-quarters inch red, white and blue band horizontally across its entire width. The three colors are separated by thin white lines and are stepped (one of the bands being 5½ in. from the top of the envelope). The upper left-hand corner of the border should be printed in the upper left-hand corner, above the band, and the lower left-hand border should carry the 3½ x 8½ expanded horizontal in full size.

The lettering of this box is red, and the border in blue. Only white paper is to be used for the envelope.

The Post Office Department has instructed postmasters and mail clerks that the use of such envelopes for mail not intended to be carried by air mail will not cause the same to be held.

For the time being, the Post Office will not cause the envelopes to be held, but soon the Air Mail may have their envelopes printed with the three-colored stripes. Post office clerks should be given by postmen forming such envelopes to have these conform exactly with the official design, samples of which may be obtained from the Air Mail Extension Committee, Fifth Ave. and 48th St., New York City.

**VIA**  
**AIR MAIL**  
**ENVELOPES OF THIS**  
**DESIGN APPROVED BY**  
**P. O. D. FOR EXCLUSIVE**  
**USE IN AIR MAIL.**

# The Curry Bill for a Department of Aeronautics

## Comprehensive Plan to Organize Separate Air Force

By far the most ambitious plan yet put forth to solve the problem concerning the Nation's air service is endorsed in a bill which Representative Curry of California introduced in Congress on Dec. 2.

### Military and Civil Air Forces

The bill would set up a separate air force, presided over by a new member of the Cabinet to be known as Secretary of Aeronautics, and would create an air academy similar to West Point or Annapolis.

The Secretary of Aeronautics would be appointed by the President, the other Cabinet members would have an Assistant Secretary. Thus the Curry Bill would create two Defense Ministers, one to be Chief of Civil Air Forces and the other Chief of Civil Air Forces.

Each division would be four departments, each headed by a Brigadier Marshal, corresponding to a Brigadier General. The Brigadier Marshals also would be appointed by the President, subject to Senate confirmation, but though some would have to be holders of commissions in the Army or Navy Air Service, others would be drawn from civil life.

### Division of Air Service

The eight departments which Mr. Curry would set up are: War Plans, Training, Operations, Administration, Engineering, Supply, Finance and Civil Activities, of which the first four would be supervised by the Chief of Military Forces and the others by the Chief of Civil Forces.

### Jane's All the World's Aircraft

Barron's famous "bigger and better than ever" issue to mark this year's new 1934 edition of Jane's All the World's Aircraft. The book which has been appearing each year since 1911, gives a summary of the world's aeronautical progress.

First it takes up each country and gives a description of what has been going on in aviation. It takes up the aeronautics giving the outlines of what has been accomplished as well as the latest designs of passenger aircraft, etc. In the military field it gives the summaries of the forces, the number of squadrons, active fields, etc, and this for all countries and as remarkably detailed because. That so called Historical Review covers some 75 pages of a book whose pages are somewhat larger than *Almanac's*.

The next section is devoted to a description of airplanes grouped by countries. There are some 250 pages in this section, containing photographs as well as the descriptions and performances of the aircraft being covered. The new planes put out during the course of the year by all factories give an inspiring impression of the amount of aeronautical work that is going on. Many current aircraft are also described.

The third part is devoted to a description of all the latest airships and dirigible airships. The improvements on many of these aircraft are also given. The whole book is well gotten out and forms a most useful reference book. It is compiled by C. G. Grey, Editor of *The Aeroplane*, and is published by Sampson Low, Martindale & Co. Ltd., of London.

### A.N.A.S.A. Election

The names of officers and members, Board of Control, of the Army and Navy Air Service Association elected at the annual meeting held in the Trophy Room, Marquette Building, Washington, D. C., at 4:30 p. m., Monday, Oct. 27, 1924, is as follows:

1320

Under the Training Department, the bill provides for special schools to instruct pilots for the civil branch and a Staff College, War College and Air Forces Academy, to train officers for the military branch.

The rate of promotion would be more rapid in the military force, with more liberal pay and retirement privileges than now exist. The bill specifies that 25 per cent of the flying personnel would be retired after ten years, thus insuring a younger and theoretically better equipped flying force.

### To Correct Present Evils

That the present system of air service organization leaves much to be desired is the general opinion of most of the older airmen in generally admitted. The Curry Bill seeks to correct the evils in question, but goes much further than any program hitherto discussed.

The idea of a separate air force has many claimed, dynamic, but strong influences in both Army and Navy. Instead of leaving their own airmen, they are trying to block it.

That was one of the main reasons it failed to gain the support of generally popular men, and the other main reason of aviators agree, participation only increases the production.

President Coolidge's special board set up when his Secretary of War, Gen. Billy Mitchell, was recalled from the Pacific Coast a few weeks ago, is studying the relative importance of aircraft, ballooning and submarines, but is not devoting itself directly to solving the present Air Service problems of the country.

Officers for term expiring October, 1929: President, Maj. Gen. Mason M. Patrick, U.S.A.; 1st Vice-President, Gen. Alvin W. Myrick, U.S.A.; 2nd Vice-President, Brig. Gen. Charles Mitchell, U.S.A.; Lt. Col. Frank P. Murphy, U.S.A.; Lt. Col. W. E. Hartman, U.S.A.; Lt. Col. T. L. Tamm, U.S.A.; Lt. Col. W. E. Fitch, U.S.A.; Maj. Charles E. A. O.R.C. Secretary, Earl N. Farley, Infantry Captain, U.S.A.; Ass't Secretary, Capt. Robert Olday, U.S.A.; Treasurer, Lt. Col. Clair Street, U.S.A.; Ass't Treasurer, Capt. Ernest R. Land, U.S.A., and Chairman, Board of Directors, Maj. W. G. Kline, U.S.A.

Members of Board of Control for term expiring October, 1929: Lt. Col. E. J. Conne, A.S., O.R.C.; Maj. Maynard F. Smith, U.S.A.; Maj. Gen. W. G. Jones, U.S.A., and Maj. Gen. Frank, A.S., O.R.C.

Members of the Board of Control elected previously are as follows: For term expiring October, 1928: Capt. A. W. Johnson, U.S.A.; Lt. Col. H. E. Hartman, A.S., O.R.C.; Lt. T. Patterson, U.S.A., and Lt. Col. W. G. Schellene, A.S., O.R.C.

Officers for term expiring October, 1930: Capt. Robert E. Williams, U.S.M.C.; Lt. Col. J. F. Fitch, U.S.A.; Lt. Col. W. E. Olday, U.S.A., and Maj. Ernest Green, A.S., O.R.C.

### New American Record Recognized

A new American record for seaplanes recently established at Hampton Roads, Va., has been recognized by the Contest Committee of the National Aeroplane Association as follows:

#### CLASS C-2-SEAPLANES

Speed for 2000 Kilometers  
Louis V. Vierck, Charles E. McNeilly, and George C. McNeilly, winning Air Trophy, Liberty 600 hp., at Hampton Roads, Va., Nov. 7, 1923—121,578 km.s./hr.—351,642 mi./hr.

As this record exceeds the existing world record for this category, the official report will be forwarded to the Federation Aeronautique Internationale for recognition by the latter.

September 8, 1924

### AVIATION

The Focke-Wulf Cabin Plane  
The German air force now has available an aircraft suitable for aerial transportation, where the volume of traffic is not too great. This machine, the Focke-Wulf, is equipped with a 120 h.p. Siemens-Halske motor and carries three passengers in a cabin the pilot. The passengers are seated in a small lighted, enclosed side cabin, which is easy to get in and out of.

### High Power Efficiency

This machine has been in operation on the Bremen-Wiesbaden line which is operated by the Bremer Luftverkehr and seems to be giving satisfactory results. The ship was constructed by the Focke-Wulf Flugzeugbau of Bremen after much research and aerodynamic experimenting. These results in obtaining greater efficiency were not obtained only in the laboratory with scale models but also with full size aircraft.

The aircraft construction has been especially studied so as to reduce strength with lightness. As a result, the weight light is 1,254 lb. which for a machine comparable in its usefulness, with a useful load of 1,000 lb., is very light in loaded weight of 2,250 lb. The maximum speed of the aircraft should be 110 m.p.h. in level flight, and the landing should be at 50 m.p.h. in level flight. The maximum light weight landing should be at 40 m.p.h. in level flight.

The aircraft has a very good landing gear, which externally adds to the safety of landing—an element which must not be neglected in aerial transportation. The performance of the Focke-Wulf is truly remarkable, considering the small power. It appears that due to the various factors, the performance of the aircraft is equal to that of the Fokker F.III and Fokker G.I. It is not surprising that the Focke-Wulf is 27 m.p.h. faster than the low speed of 24 m.p.h. The climb is 2,250 ft. in 14 min., and the radius of action is 300 mi., or four hours of flight.

### The Wings

The Focke-Wulf is a biplane monoplane with the wings being of a single plane. The span is 45 ft. 7 in., the chord 8 ft. 6 in. (constant) wing area 281 sq. ft. The plan form of the machine somewhat resembles the early war "Tombes." The top wings taper from the center section, where it is a little over 16 in. in thickness, toward the tips. It is not a slight dihedral, and it has negative angle of incidence at the center, but reaches 15° negative in the first third of each half span. The bottom wings taper from the center section, and finally reaches a negative incidence at the end of each wing.

The wing structure is entirely of wood, consisting of two box spars of spruce and three-ply. The ribs are made of wood, glued and lightened. The wing is fastened to the fuselage by the top leverons of the fuselage in such a way as to merge the latter, which gives an excellent streamlining.

The landing edge of the wing is covered with veneer, the rest of the wing being cloth covered. The ailerons are set at 45° to the horizontal, and the rudder is set at 20° to the horizontal and the rudder is set at 20° to the horizontal. The shock absorbers are wrapped around the axle and are fastened to the streamlining which extends from the fuselage. The track of the wheels is 6 ft. 0 in.

### Focke-Wulf 4-place transport plane, view from the front

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### The Fuselage

The fuselage is also built entirely of wood. Its length is 20 ft. 6 in. Throughout its length the fuselage is rectangular in shape and is of wire-braced construction, having a front cockpit and a rear cabin. The front of the cabin are partitions of the type and are of the same thickness as the fuselage thickness.

In front of the cabin, supported by four wooden compression struts, braced by piano wire, are two box type ball-

heads. One serves as support to the motor and the other besides adding to the general strength of the machine serves as bearing for the fairing which encloses the motor and propeller.

The pilot is seated in front of the forward wing tips so that he gets excellent visibility. The seat is reached by steps



in the rearview. The passenger cabin is placed under the wings, but has seats for three passengers and is lighted and ventilated by four large windows. A large door, shown in the rearview, gives the passengers access. The cabin is 5 ft. 3 in. wide, 4 ft. 7 in. long and 6 ft. 2 in. in height.

The horizontal stabilizer, 10 ft. 4 in. is set at an angle of slightly more than one degree. The elevators are balanced. The vertical fin is of triangular shape and of the same length as the vertical stabilizer. The rudder is unbalanced. The tail skid is of wood reinforced with wire. The deck of the fuselage is strengthened into the pilot's seat.

### Landing Gear

The landing gear is mounted directly under the fuselage which houses the forward part of the cabin. It is composed of a split axle which is strengthened into the bottom part of the fuselage. Each half has a shock absorber, 2 ft. 6 in. high and is hinged on one end to the cabin floor, the other end carrying the wheel. The shock absorbers are wrapped around the axle and are fastened to the streamlining which extends from the fuselage. The track of the wheels is 6 ft. 0 in.

### Power Plant

The engine is a seven cylinder Siemens-Halske air cooled radial. This 75 h.p. engine runs at 1,600 r.p.m. The forward fairing houses the engine and the propeller. An aluminum cowling fairing off the engine so that only the heads of the cylinders are exposed. A gasoline tank of four bushel capacity is placed in the wings.

GENERAL CHARACTERISTICS	DATA
Span	45 ft. 7 in.
Chord	8 ft. 6 in.
Wing area	281 sq. ft.
Wing load	7.7 lb. per sq. ft.
Length	20 ft. 6 in.
Width	4 ft. 7 in.
Height	6 ft. 2 in.
Radius	300 mi.
Flight speed	110 m.p.h.
Climb speed	2,250 ft. in 14 min.
Weight light	1,254 lb.
Cycling radius	4 mi.

# AIRPORTS AND AIRWAYS

## Akron News

By Paul M. Rees

Herbert W. Mausen, of the Goodyear Tire & Rubber Co., was named president of the Akron Commercial Aircraft Association at a meeting held here recently, filling the vacancy caused by the death of the Akron aviation group's first head, Louis Harriet A. Kullberg, killed in an airplane accident near Blairstown, the hour before the election.

On U. S. Line, M. D., was elected to fill a vacancy on the board of directors and the following committee named for the coming year:

Administrators, C. E. Wollan, chairman, and Frank O'Neill, Membership, H. E. Fulton, chairman, Harry Blairstown, Airport O'Neill, and East Cleveland, legal, Walter H. Wadsworth, chairman, Frank Eiken, chairman, Paul H. Rose, and Harry



Aircraft details recently glorified on Long Island—left, engine nacelle and landing gear of the Sikorsky passenger carrier; center, the nose of the new Reinert corps observation ship with Napier Lion engine; right, the Curtis Scorpion Amphibian

August, Financial, Akron Parker, chairman, and L. J. Manning, Testwood, H. T. Heath, chairman, C. E. Ladd, chairman, McLaughlin Lighter-than-air, J. M. Tolson, chairman, Walter Morris, Charles Zimmerman, Harry Walker and A. G. Mansfield.

The Akron association was organized a year ago for the promotion of safe commercial aeronautics and has advanced rapid impulsion of civilian-owned transports as the Akron motto.

An extensive program in preparation for the coming month has been planned and will be entered upon this month

L. J. Manning, one of the Akron men who has been operating a Standard on Northern Ohio the past few months, recently "purchased" an SOS dual motor Standard.

Mr. Manning took up a new operation when he acquired a few loads of sand from an automatic shotgun in the general direction of some rail which were soaring languidly around his plane and proceeded to a nearby town for a duck dinner.

When he returned to his plane he found that someone had placed a sturdy chain and padlock about his propeller. And so soon found out why. The sheriff and SOS and Manning paid.

It's sometimes costs to live about the air legislation," Manning is said to have told his associates at Sioux Field.

\* \* \*

Capt. E. A. Leibman, vice president of the Goodyear Zeppelin Corp., who was executive officer of the SOS on its trans-Atlantic flight, has taken up permanent residence in Akron and assumed his new duties with the Goodyear engineers.

\* \* \*

Ward T. Van Orman and J. F. Cooper, both of Goodyear, piloted the five balloon "Goodyear 12" in a Fox-and-Hound

contest held from Canton, Ohio, Nov. 16 under the auspices of the Canton chapter of N.A.A.

On the night preceding the balloon contest the Curtis chapter gave a dinner in honor of Col. F. S. Laken, one of America's oldest balloonists. Colored Laken, it will be remembered, with his son Louis, F. S. Laken, was the International Gordon Bennett Balloon race champion in 1906.

Y. C. Bishopp has completed a new three-place, nose fuselage monoplane plane for Dr. C. B. Lester which is now being tested at Rose Field. It is powered with an OX-500 and has performed satisfactorily.

Akron hopes to have a full complement of officers and men for the reserve 700th corps which have been assigned here by the Army, before spring.



December 8, 1928

## AVIATION

### Detroit News

By Vogel Sorenson

Sgt. Harry Ogle, A.S.C., world flyer and mechanician to Lieutenant W. L. Smith, paid a recent wellfied call on his former employer and brother officers at Selfridge Field.

According to newspaper stories, printed in various accounts of the world flight, Lieutenant Ogle stated that they were never held up by the Bolsheviks in Russia, that they did not stop there when flying through treacherous Alpine passes, nor got caught in any of the snows of Greece.

Having been granted the privilege of crossing any flying field in the United States at his station, Lieutenant Ogle has chosen Selfridge Field. His former lieutenants conclude,



Two aircrafts

They had an air traffic radio—and two civilian planes collided on landing at an airport near Chicago with the results shown above. The pilots escaped injury.

fit regular officers of the 1st Pursuit Group, and Reserve officers exequently used his permanent assignment to this field.

It is perhaps in order at this time to draw the attention of local Reserve Officers to the privilege of keeping up flying hours by reporting for practice flights as often as personal business permits, with particular reference to Selfridge Field, where they will find ready access and convenience from Major Bunting and the officers under his command.

An officer of the regular establishment recently addressed to me that they were aware of the fact that there is considerable "dead wood" in the Officers Reserve Corps. I trust that he is correct that, indeed, every Reserve officer, in whatever part of the United States his home may be, will let the application of these above stated "hook" and "ring" and "ring" more often at one of the Air Reserve Aerodromes, as well as here in touch with the latest improvements in aircraft, not necessarily down a scale of duty, but as a genuine revival of the spirit of "flying in the blood".

For the past four months, or more, on a monthly list on Great Aerodrome to Encamp, starting Sept. 1, there has stood the fuselage of the all-metal, experimental, variable-pitch monoplane, built by the Davis Aircraft Co. in 1922 and 1923.

It is now disappears by its absent and it appears that it has been traded to the Williams, president of the Aero Corp. for a Biplane Cessna, which has been posted on an early flight platform. For about two years, in front of the Aero Corp. plane.

Having flown this ship on its first two test hops, I am quite familiar with its construction, and find that, notwithstanding the fact that, through various causes, this ship was a very inadequate medium for the experimental determination of the actual value of this form of variable camber, and the results to be measured by Mr. Davis is sound and a matter of serious consideration.

Practically all availables for municipal offices during the winter period made extensive use of aircraft in the promotion

of their candidacies. For a period of six days or more practically every engine, dirigible or various types, from Janes and Cessna through to Leards and Jenkins could be seen at all hours of the day and early evening, hawking over Detroit and vicinity.

R. L. French and the writer spent most of election day over Detroit, in the Biplane-Land, dropping 75,000 bills for French, who was elected Detroit's next Mayor.

In spite of the fact that it has taken considerable time to reduce the unnecessary airport problem to its present status, and many months will elapse before the site chosen can be used for airplane traffic, I venture to predict that it

will not be many years before Detroit will find, in her natural expansion of administrative transportation, the present 120 acre site inadequate to take care of the demand for airplane transportation.

An article came through the Associated Press to a local newspaper as the fifth day after election, giving sound reasons why 200 of the leading business men of the country felt that a tremendous wave of prosperity was just breaking in the light of this election and, therefore, as it may seem, we find a demand for passenger flights at Eastwood Flying Field on the first Sunday after Election than has been the case for a month or more prior to election.

### Another England-Australia Service

Great Britain is not entirely relying on large rigid airships to bring about the much talked of air line from England to Australia.

To fact, a 16,000 mi. all-metal air route connecting Britain with Egypt, India and Australia is being planned by the Air Ministry, and that special airships are being designed for different stages of this great Empire air route. Already upwards of 2,000 mi. of this route is in operation. The Imperial Airways, founded by Sir T. Sopwith of the Sopwith Co., and an airship company planned for the route to Ceylon, India. These three short cross-ocean link will join up with the eastern Rapid Air Ferry mail service between Cairo and Bagdad, and the route will continue thence to Ceylon.

On the link between Ceylon and Bangkok, a distance of about 300 mi., big all-metal flying boats, driven by powerful Napier engines are now in use for the Air Ministry. These are the first all-metal, experimental, variable-pitch monoplanes, built by the Davis Aircraft Co. in 1922 and 1923. It is now disappears by its absent and it appears that it has been traded to the Williams, president of the Aero Corp. for a Biplane Cessna, which has been posted on an early flight platform. For about two years, in front of the Aero Corp. plane.

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# AIRCRAFT SERVICE DIRECTORY

CONTINUED



## HAMILTON PROPELLERS

### EVENING COURSE IN AERODYNAMICS AND AIRPLANE DESIGN

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